**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Score:\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

You are looking to start your own small business. Because you enjoy being at the night club with your friends, you decided to own and operate a night club. As any business owner, your goal is to devise a plan that will yield maximum profit. There are many different things you need to consider before making your final decision. You have the following information available to you for this creating this club.

|  |  |  |  |
| --- | --- | --- | --- |
| **Location** | **Rent for building per month** | **Competition nearby**  **(Monthly gross income)** | **Expected Customers per month.** |
| 1350 Main St, Hartford, CT 06120 | $4500 | West Indian  **($8,500)** | 400 female  450 male |
| 120 Albany Ave, Hartford, CT 06112 | $3000 | [Jamaica Progressive League](http://www.yellowpages.com/hartford-ct/mip/jamaica-progressive-league-461761163?lid=461761163)  **($6,000)** | 300 female  320 male |
| 1181 Homestead Ave, Hartford, CT 06112 | $2500 | Caribbean American Society of Hartford **($5,300)** | 75 female  100 male |
| 2145 Newfield Ave, Hartford, CT 06106 | $3500 | [Passion Club](http://www.yellowpages.com/hartford-ct/mip/passion-club-460584148?lid=460584148)  **($7,200)** | 350 female  425 male |
| 6115 Asylum St  Hartford, CT | $6560 | **Bar With No Name**  **($12,400)** | 1000 female  1200 male |

**ENTRY FEE:** The entry fee usually starts at $10. Statistics have shown that each dollar increase in entry fee result in 5% decrease in customers.

**DRINK COST:** The drink usually cost $5. Statistics have shown that each dollar increase in drink cost result in 3% decrease in customers buying a drink.

**Lady’s Night:** During this event ladies enter the club at no cost. Statistics have shown that during Lady’s Night 30% more customers attend the club.

**Advertisement:** One method of increasing number of customers is to advertise your business. Statistics have shown that for every $500 dollars spent on advertisement result in 1% increase in customers.

**Disc jockey**, also known as **DJ**, is a person who plays recorded music for an audience. DJ at night club usually charge around $700-$1000 per week.

**Bartender:** Hourly rate is around $10 per hour

**Night club Security:** Weekly pay is around $400

**Light Bills:** Depending on the usage. Could range from $500-800

**PART 1:** Use the following chart to organize your business model.

|  |  |
| --- | --- |
| **Name of your club** |  |
| **Expected profit** |  |

|  |  |
| --- | --- |
| **Expenses** | **Revenue** |
| **Monthly rent depend on location** | **Entry Fee** |
| **DJ** | **Drink cost** |
| **Bar Tender** |  |
| **Security:** |  |
| **Light bills** |  |
| **Advertisement** |  |
| **Lady’s Night:** |  |
| **TOTAL EXPENSES = \_\_\_\_\_\_\_\_\_\_\_\_ + RENT** |  |

**Let X = Total number of customers per month (male and female).**

**Let Y = Total number of drinks sold per month.**

**PART 2:** Using the facts you know write a **general form** of equation for calculating profit using the variable X and Y and expenses.

**You know:**

* Expected number of customers
* Expected profit
* The expenses (bills)
* Entry fee and cost of drink

**You want to find out:**

* Number of drinks you need to sell in order to make your expected profit.

Fill in the missing part to write a **general from** of equation.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_) = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - ( \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_) = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**PART 3:** Write an equation for each location and solve for number of drinks. **Lets not** consider **ladies’ night** and **advertisement cost** for this part.

|  |  |
| --- | --- |
| **Location** | **Profit Equation** |
| 1350 Main St, Hartford, CT 06120  **Rent:** $4500  **Expected customers**  400 female  450 male |  |
| 120 Albany Ave, Hartford, CT 06112  **Rent:** $3000  **Expected customers**  300 female  320 male |  |
| 1181 Homestead Ave, Hartford, CT 06112  **Rent:** $2500  **Expected customers**  75 female  100 male |  |
| 2145 Newfield Ave, Hartford, CT 06106  **Rent:** $3500  **Expected customers**  350 female  425 male |  |
| 6115 Asylum St  Hartford, CT  **Rent:** $6560  **Expected customers**  1000 female  1200 male |  |

**Part 3:** Decide on the location of your club and provide at least one reason for choosing this location.

­­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Part 4:** What did you learn from this project? Do you have any suggestion?